BNL BERYLLIUM USE REVIEW FORM (CuBe)

CURRENT: OPERATIONS CURRENTLY BEING DONE
Complete a separate questionnaire for each beryllium operation.

Department	(machine shop, accelerator, experiment, laboratory) National Synchrotron Light Source (Accelerator)
Use of Beryllium	(detector window, beam pipe, reaction product, stock) Copper beryllium - CuBe (usually ~1.8 - 2% Be) Springs, clips, electrical feed-throughs and contacts, tools Rods, Sheet, Wire
Describe Use or Process	Usually handled as an ARTICLE Power tool (hole punch) Hand Tool (shear)
Description of Operation/Handling Procedure:	1. Used in the manufacture of springs, clips, electrical contacts (sheet cut with shears, hole-punched, no grinding or filing). May be 100's to 1000's around the NSLS (in vacuum and out). 2. Used in "Power-Push-On" connectors for electrical feed-throughs; a commercial product (Insulator Seal Inc.), may be 100's to 1000's around the NSLS (in vacuum and out). 3. Tools, wire, clips, etc. used in magnet testing lab due to its non-magnetic properties and high tensile strength. Also, non-sparking properties. NOTE: - This material may be used in many more applications than we are aware. It could be used in electrical contacts on every light switch in BNL. It could be in a wide variety of electrical equipment. - Guidance will be needed as to whether it can be safely machined (@ only 2% Be) and how to clean up waste. - While personnel take care in handling Be metal and BeO, I am not aware of special handling needs (gloves, etc.) for CuBe.
Physical State of Be Amount Used	Solid (rod sheet wire article) - see above for more detail N.A.
Building: 725 727	Room: Experimental floor Room 2-190A (storage) Room 1-123C (tools) X5 Target Room (tools) Magnet Lab. (in use, storage, tools)
Frequency of Use	Continuous use
Engineering Controls:	Describe: none used at present for shearing and hole punching.
Personal Protective Equipment	Gloves: None at present Clothing: Lab Coat (sometimes) Respirator: None at present Frequency: Occasional
Users (with life number of Job title)	Name & Status (Current Employee) *Current techs and scientists:* Mike Radulesku, Tony Lenhard, Rick Greene, Shu Cheung, George Radulesku, George Rakowsky, Dave Harder, Mike Lehecka, Bob Scheuerer, Roy d'Alsace, Gloria Ramirez; William Newburgh, many NSLS staff and users use electrically related articles.

Emergency Response Scenario [Describe likely event(s)]	Electrical contacts can be melted or vaporized as a result of arcing. As a result of such an incident inside an RF transmitter cabinet, air and surface surveys were taken, clean up was performed and a recommended protocol for working in this type of environment was established.
Written Documentation and Emergency Response	NSLS PRM 6.3.0 "Beryllium Management" outlines the NSLS beryllium program, including: ▪ Responsibilities ▪ Work Control Requirements Storage and Handling Damaged Articles Oxidized Articles ▪ Training ▪ Wastes BNL Industrial Health staff is contacted to conduct surface and air monitoring as necessary.
Pollution Prevention Plan	N.A. No machining except shearing and hole punching.
End of Project Plan	End-of-Project Plan would involve dealing with any remaining beryllium as a waste as described in NSLS PRM 6.3.0.

Person Completing the Questionnaire

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